

Virginia's Key Business Sectors

Industries of the 21st Century

Virginia continues to experience robust job growth and capital investment. Virginia's targeted business sectors are diverse. Whether you're manufacturing communication satellites, processing ready-to-bake cookie dough, or warehousing and distributing products globally, Virginia's unique combination of resources provide a strong foundation for your success.

- [Aerospace](#): Virginia is home to 159 Aerospace companies. The top two sectors for the industry are Aerospace Technology and Aerospace Equipment.
- [Automotive](#): Virginia is home to 173 Automotive companies. The Automotive industry accounts for 3% of Virginia's total of 6,200 manufacturing establishments.
- [Plastics & Advanced Materials](#): Virginia is home to more than 200 plastics companies, employing more than 24,800 Virginians.
- [Corporate Headquarters](#): Virginia's pro-business climate, global access and talented workforce combine to make the ideal location for corporate headquarters. Virginia is home to more than 70 headquarters that earn at least \$600 million in revenue each year.
- [Energy](#): Virginia is home to 384 Energy companies. The top sectors for the Energy Industry are Traditional Power Generation and Fossil Fuel Sources.
- [Food Processing](#): In 2008, Virginia's Food Processing industry employed more than 34,700 people. The Food Processing industry accounted for 12.7% of Virginia's total manufacturing employment.
- [Global Logistics](#): Today's leading distributors are taking increasing advantage of Virginia's proximity to Eastern U.S. and Midwest markets.
- [Life Sciences](#): In 2008, the life sciences industry accounted for over 700 firms in Virginia and for more than 16,200 jobs.
- [Technology](#): With more than 285,000 high-technology jobs in Virginia in 2008, Virginia has the highest percentage of technology workers in the country and is ranked 5th in total high-technology employment as reported in Cyberstates 2009.
- [Modeling & Simulation](#): Virginia has 190 companies applying Mod-Sim technology to diverse industries such as defense, health care, aerospace, transportation, and entertainment.
- [Wood Products](#): Wood Products represents Virginia's largest number of manufacturing establishments. The top three sectors for Wood Products are Household and Institutional Furniture and Kitchen Cabinet Manufacturing, Other Wood Product Manufacturing, and Sawmills and Wood Preservation.

Virginia: The New Aerospace Center

Virginia's Aerospace Contact:

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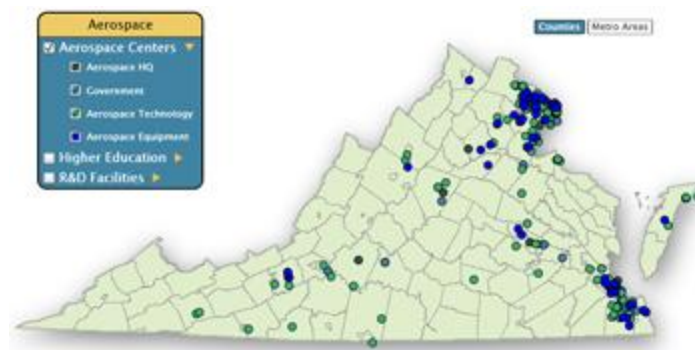
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An Ideal Launch Pad for Success

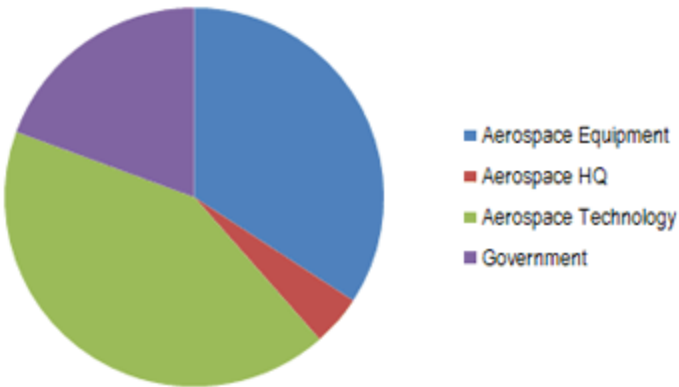
Virginia has played a leading role in advancing the American aerospace industry since 1917, when NASA Langley Research Center—the nation's first civil aeronautics laboratory—was established in Hampton, Virginia. In 2007, Rolls-Royce announced it will build a state-of-the-art aeroengine facility in Prince George County, creating 500 new jobs.

Virginia's Aerospace Industry

- Employs more than 26,100
- Location of a new jet-engine manufacturing operation for Rolls-Royce
- Home to the Mid-Atlantic Regional Spaceport
- Home to the National Institute of Aerospace
- Location of NASA Langley Research Center and NASA Wallops Flight Facility
- Consists of 159 firms, 83 in the Aerospace Technology sector and 50 in the Aerospace Equipment sector
- Supported by 422 machine shops employing 5,500 people
- Ranks second in the nation for U.S. Department of Defense Prime Contracts (\$36.7 billion in FY 2008)
- Direct economic output of \$5.4 billion
- Central location on the Atlantic Coast provides interstate and rail access to the Northeast, Southeast, and Midwest
- Access to international markets provided by the Port of Hampton Roads and Washington-Dulles International Airport

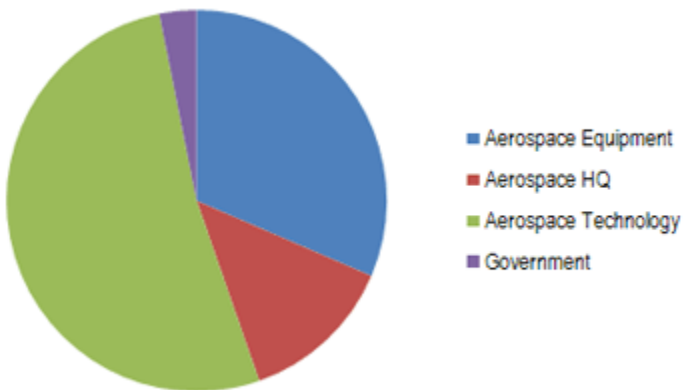


Aerospace Industry Employment in Virginia, 2008



In 2008, Virginia's Aerospace Industry employed almost 26,100 people. The top two Aerospace sectors by employment are Aerospace Technology (11,000) and Aerospace Equipment (8,900). These two sectors comprise 76% of all Aerospace Industry employment in Virginia. Virginia's Aerospace Industry covers research and development in private, academic, and government as well as the production of aerospace equipment. The economic output of Virginia's Aerospace Industry is \$5.5 billion. Aerospace also supports \$3.4 billion in additional economic activity in Virginia.

Aerospace Industry Firms in Virginia, 2008



Virginia is home to 159 Aerospace companies with 349 locations. The top two sectors for Aerospace Industry firms are Aerospace Technology (83) and Aerospace Equipment (50). These two sectors comprise 84% of Virginia's Aerospace companies.

Major Aerospace Employers in Virginia
Aerojet
Alcoa Howmet
Aurora Flight Science
BAE Systems
Boeing
Cobham Corporation North America
Dynamic Aviation Group
EADS North America
General Dynamics
Goodyear Tire & Rubber
L-3

Lockheed Martin
Moog
Northrop Grumman
Orbital Sciences Corporation
Raytheon
Rockwell Collins
Rolls-Royce North America

In the past ten years, 55 Aerospace Industry projects have announced over 5,000 new jobs and investments of \$1.3 billion.

Recent major announcements include
Cobham Composites
Eagle Aviation Technologies
NextGen Aeronautics
Orbital Sciences Corporation
Rolls-Royce North America
RTI International Metals

Virginia's Pro-Business Operating Environment

The Commonwealth of Virginia offers companies a favorable business environment characterized by a stable, competitive tax structure and legislation that protects "at will" and "right-to-work" employment practices.

- Worker's compensation and unemployment insurance payroll expenses are consistently among the lowest in the nation
- 6% corporate income tax accounts for less than 10% of total state tax revenues and has not changed in over thirty years
- Manufacturers receive broad sales tax exemptions for purchases of machinery, tools, replacement parts and raw materials used in the production process, as well as all utilities delivered through pipes, mains, and lines for all purposes
- Virginia does not tax accounts receivable, inventory, computer software or other intangibles, and does not levy a license tax on gross receipts
- The primary local taxes apply to real estate and machinery and equipment
- There are no school taxes in Virginia
- Virginia has extremely reliable electric service at very competitive rates—average cost per unit of electricity for the industrial sector is 4.63 cents in Virginia, compared to 6.15 cents for the nation
- Unsurpassed quality of life—health care, educational and recreational benefits for families rank among the finest available anywhere in the United States

Virginia is a Leading Gateway to the World

- Two of the nation's largest railroads, CSX Corporation and Norfolk Southern Corporation, have extensive infrastructure throughout the State
- Fourteen railroads operate on more than 3,400 miles of railway in Virginia, of which more than 3,100 miles are Class I—one of the strongest rail networks in the nation

- Six interstate highways and direct, double-stacked rail connections provide quick access to Northeast, Southeast and Midwest markets
- 14 commercial airports serve the Commonwealth, including two of the nation's largest, Washington Dulles International and Ronald Reagan Washington National
- The Port of Virginia is the second largest intermodal facility on the East Coast and, due to natural harbor depth and Suez-class cranes, the only East Coast location capable of handling post-Panamax vessels as first port of call
- The Port of Virginia offers a schedule of approximately 3,000 sailings annually to more than 250 ports in 100 foreign countries

Education and Training

The National Institute of Aerospace is a research and graduate education institute created to conduct leading-edge aerospace and atmospheric research, develop new technologies, and help prepare the next generation of scientists and engineers. NIA is a strategic partner of NASA Langley Research Center and works through a consortium of research universities including Virginia Tech, University of Virginia, Old Dominion University, and William and Mary.

The Virginia Community College System provides education and training programs for Virginians and Virginia businesses. Degree programs include:

- CAD/CAM
- Engineering Technology
- Industrial Electronics
- Industrial Production
- Industrial Technology
- Mechanical Engineering Technologies
- Welding

Virginia's Aerospace Research and Development Assets

- Defense Advanced Research Projects Agency
- NASA Langley Research Center
- NASA Wallops Flight Facility
- National Center for Hypersonic Combined Cycle Propulsion
- National Institute of Aerospace
- Joint Training, Analysis, and Simulation Center
- Old Dominion University's Langley Full Scale Wind Tunnel
- The Virginia Modeling, Analysis and Simulation Center
- University of Virginia's Aerospace Research Laboratory

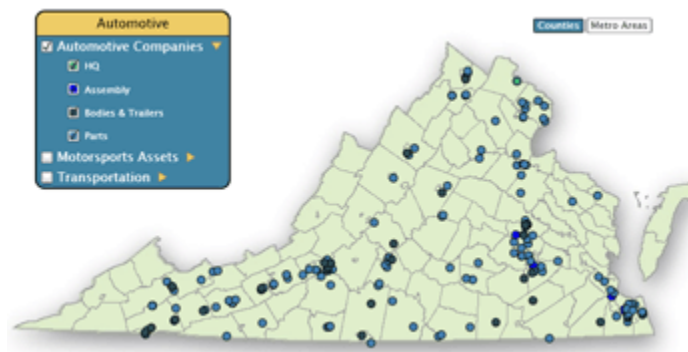
- Virginia Tech's Department of Aerospace and Ocean Engineering
- Virginia Space Grant Consortium

Virginia's Government and Military Assets

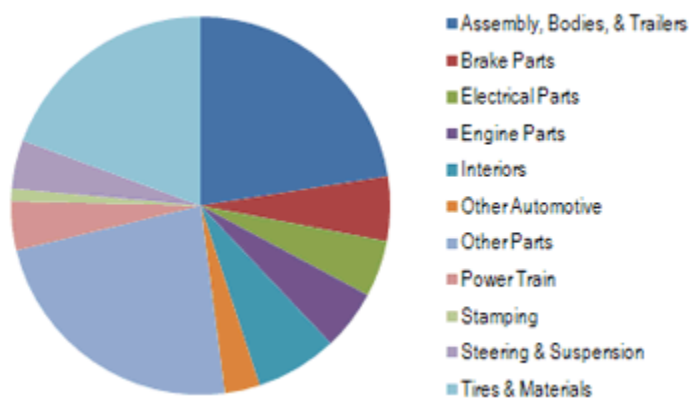
- Over 16,000 people exit the U.S. military from bases in Virginia each year
- The Pentagon
- Central Intelligence Agency
- Department of Homeland Security
- Ballistic Missile Defense Organization
- Defense Technical Information Center
- Fort Belvoir
- Fort Eustis
- Fort Lee
- Langley Air Force Base
- Department of Homeland Security
- National Ground Intelligence Center
- National Reconnaissance Office
- Naval Air Station, Oceana
- Naval Surface Warfare Center, Dahlgren
- Norfolk Naval Base
- Office of Naval Research
- Quantico

Virginia's Automotive Industry

- Employs 18,800 people
- Consists of 173 companies, 134 in the Automotive Parts sector
- Supported by 422 machine shops employing 5,500 people
- Has a direct impact of \$7.1 billion
- Home to Volvo Truck North America's New River Valley Plant (Dublin, Virginia), the largest Volvo truck plant in the world
- Home to the headquarters of Volkswagen of America
- Central location on the Atlantic Coast provides interstate and rail access to the Northeast, Southeast, and Midwest
- Access to international markets provided by the Port of Hampton Roads and Washington-Dulles International Airport

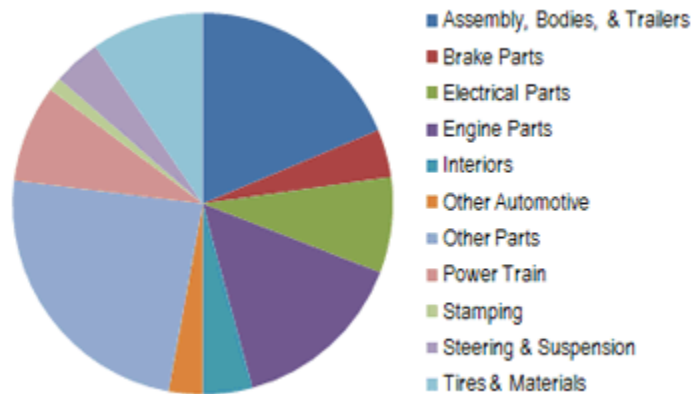


Automotive Industry Employment in Virginia, 2008



In 2008, Virginia's Automotive Industry employed 18,800 people. The Automotive Industry accounts for 7% of Virginia's 272,800 manufacturing workers. The top three Automotive Industry sectors by employment are Other Parts (4,400); Assembly, Bodies, and Trailers (4,200); and Tires and Materials (3,600). These three sectors comprise 65% of all Automotive Industry employment in Virginia. The Automotive Industry in Virginia creates \$7.1 billion in direct economic output and supports an additional \$3.5 billion of output.

Automotive Industry Firms in Virginia, 2008



Virginia is home to 173 Automotive companies with 178 locations. The Automotive Industry accounts for 3% of Virginia's total of 6,200 manufacturing establishments. The top three sectors for companies in Virginia's Automotive Industry are Other Parts (42); Assembly, Bodies and Trailers (32); and Engine Parts (26). These three sectors comprise 58% of Virginia's Automotive companies.

Major Automotive Companies in Virginia

Virginia has 173 companies and 18,800 people involved in all aspects of the Automotive Industry: vehicle assembly, bodies and trailers, parts, and tires. Support for Virginia's Automotive Industry includes 422 machine shops employing 5,500 people.

Major Automotive Companies in Virginia
Afton Chemical
Alcoa Wheels
Continental AG
Corning
Dupont Automotive Finishes
Dynax America
Eagle-Picher
Federal Mogul
Goodyear Tire & Rubber
Hyosung America
Metalsa
Narricot Industries
Schrader Bridgeport
Somic Ishikawa
Tenneco
Timken
TRW
Valeo
Volvo Trucks North America
Yokohama Tire

New and Expanding Automotive Companies in Virginia

In the past ten years, 124 Automotive Industry projects have announced over 9,400 new jobs and investments of \$2 billion.

Recent major announcements
Continental AG
Dynax America
ept automotive
Goodyear Tire & Rubber
Mazda
Westport Corp.

Virginia's Skilled Workforce

Selected Automotive Products Occupations	Virginia Employment	Virginia Mean Wage
Computer-controlled machine tool operators, metal and plastic	1,5600	\$16.01
Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	3,270	\$13.83
Electrical and electronic equipment assemblers	4,510	\$14.28
Engine and other machine assemblers	720	\$15.18
Heat treating equipment setters, operators, and tenders, metal and plastic	900	\$16.43
Industrial machinery mechanics	7,200	\$21.04
Machinists	7,250	\$18.08
Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic	2,670	\$14.38
Multiple machine tool setters, operators, and tenders, metal and plastic	820	\$14.72
Production workers, all other	7,550	\$13.56
Team assemblers	15,670	\$12.52
Tool and die makers	700	\$21.10
Welders, cutters, solderers, and brazers	7,620	\$17.84
Welding, soldering, and brazing machine setters, operators, and tenders	1,520	\$16.75

Education and Training

The Virginia Community College System provides education and training programs for Virginians and Virginia businesses. Degree programs include:

- CAD/CAM
- Engineering Technology
- Industrial Electronics
- Industrial Production
- Industrial Technology

- Mechanical Engineering Technologies
- Welding

Virginia's Automotive Research and Development

Virginia is home to numerous automotive R&D facilities, including:

- Old Dominion University's Langley Full Scale Tunnel
- Virginia Tech's Advanced Vehicle Dynamics Lab
- Virginia Tech's Smart Road test site
- The National Crash Analysis Center
- The Virginia Institute for Performance Engineering and Research (VIPER)
- The Virginia Modeling, Analysis and Simulation Center

Motorsports in Virginia

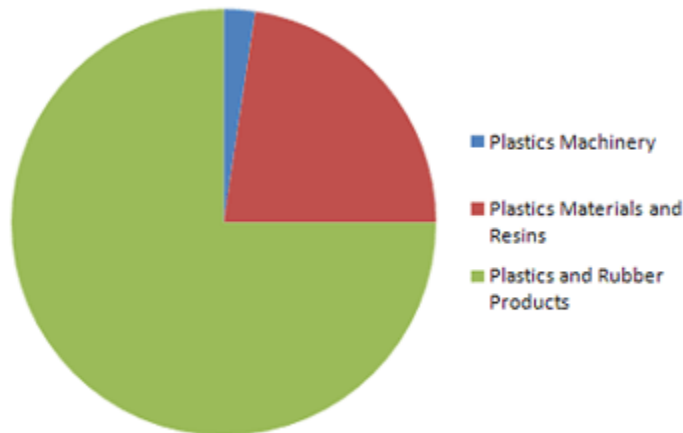
- Richmond International Raceway
- Virginia International Raceway
- Martinsville Speedway
- Virginia Motorsports Park

Plastics & Advanced Materials

Since 1998, 134 Plastics companies have made decisions to locate and/or expand in Virginia. These companies have invested \$1.2 billion and created over 6,100 new jobs. Recent major announcements include: Amcor Pet Packaging, Celanese Acetate, E. I. DuPont De Nemours & Co. Inc., Essel Propack, Klockner Pentaplast, Owens-Brockway Plastics, Printpak, Rehrig International, Rubber Commercial Products, and Yupo Corporation.

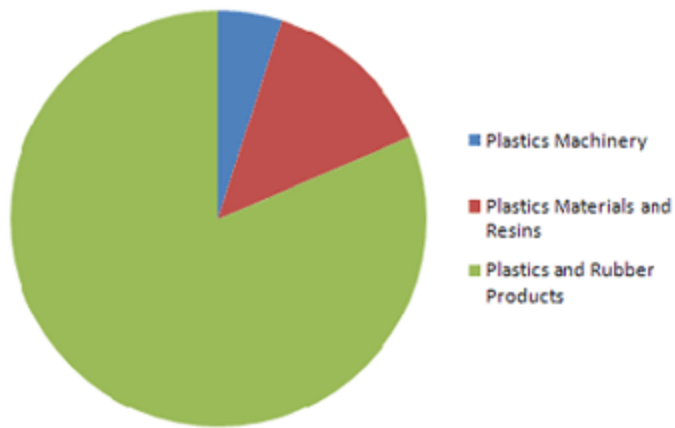
- Employs more than 26,000
- Average annual industry salary of \$51,511
- Plastics and rubber products manufacturing, the largest sector, is a \$2.1 billion industry
- Offers a wealth of excellent power, water, and other business infrastructure resources
- Sales and use tax exemptions on production-related machinery and equipment, all utilities, and materials used in production
- Central location on the Atlantic Coast provides interstate and rail access to the Northeast, Southeast, and Midwest.
- Access to international markets provided by the Port of Hampton Roads and Washington-Dulles International Airport

Plastics & Advanced Materials industry Employment in Virginia, 2007



In 2007, Virginia's Plastics & Advanced Materials industry employed 26,062 people. The Plastics & Advanced Materials industry accounted for 9% of Virginia's total manufacturing employment of 286,579. The largest of the three sectors in the Plastics & Advanced Materials industry is Plastics and Rubber Products with employment of 19,541 or 75% of the employment for the industry. Plastics Materials and Resins employed 5,903 people and accounts for 23% of the jobs, while Plastics Machinery employed 618 people and accounts for 2% of the jobs. Plastics and Rubber Products Manufacturing is a \$2.1 billion industry in Virginia.

Plastics & Advanced Materials industry Firms in Virginia, 2007



There are 204 Plastics firms in Virginia. The largest sector is Plastics and Rubber Product with 166 firms or 81% of firms in Virginia. Plastics Materials and Resins and Plastics Machinery together account for the remaining 19% of the firms.

10 Largest Plastics Employers in Virginia
Celanese Acetate
Church & Dwight Virginia
E. I. DuPont De Nemours & Co. Inc.
Goodyear Tire & Rubber Co.
IAC Strasburg LLC
Invista S A R L
Royal Moulding Limited
Rubbermaid Inc.
Trex Company Inc.
Yokohama Tire

Virginia's Skilled Workforce

Selected Plastics Occupations	Virginia Employment	Virginia Mean Wage	U.S. Mean Wage
Team Assemblers	14,350	\$12.45	\$12.72
Electrical/Electronic Equipment Assemblers	4,350	\$13.91	\$13.75
First-Line Supervisor – Production	13,610	\$25.69	\$24.88
Inspectors, Testers, Sorters, Samplers, & Weighers	10,760	\$16.52	\$15.86
Metal & Plastics Workers, All	1,210	\$23.67	\$17.56
Welders & Cutters	8,000	\$17.32	\$16.33
Multiple Machine Tool Setters, Operators, and Tenders	560	\$15.22	\$15.52
Electricians	19,760	\$20.67	\$23.12

Tool & Die Makers	800	\$21.12	\$22.36
Extruding, Forming, Pressing, Compacting Machine Operators and Tenders	3,190	\$17.21	\$14.20
Computer-Controlled Machine Tool Operators	1,720	\$16.29	\$16.20
Machinists	6,820	\$17.76	\$17.49
Industrial Engineering Technicians	1,760	\$24.75	\$24.72
Industrial Production Managers	2,370	\$44.69	\$42.09

Education and Training

Virginia's nationally acclaimed education system serves as a pipeline, supplying businesses with a steady stream of skilled new entrants. Our attention to education is reflected in Virginia's superior, well-prepared labor force.

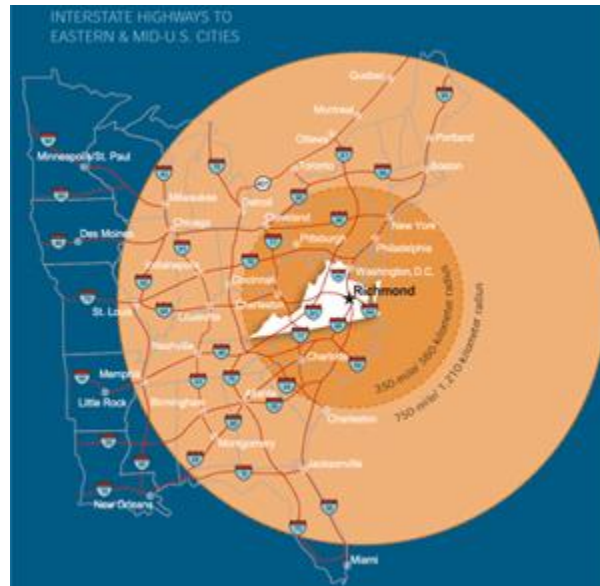
- Elementary and secondary schools rank among the best in the nation
- Over 1.2 million students enrolled in elementary and secondary schools with approximately 82,000 graduating annually
- More than 80% of graduating seniors continue their education in a two- or four-year degree program or have other continuing education plans

Strong occupational and technical training programs designed to meet the needs of the Plastics & Advanced Materials industry are provided by Virginia's colleges and universities, Community College System, and communities.

- Virginia Tech is home to Macromolecules and Interfaces Institute, integrating nanomolecular sciences and engineering
- The Virginia Community College System offers High Performance Manufacturing Technicians certifications
- Dabney S. Lancaster Community College in Western Virginia offers an Advanced Manufacturing and Packaging Technology curriculum
- The Center for High Performance Manufacturing (CHPM) at Virginia Tech works to help manufacturing firms stay competitive.

Virginia's Transportation Advantages

- Third largest state maintained transportation network in the country with six major interstate highways
- The Port of Virginia is the second largest intermodal facility on the East Coast
- Eleven railroads operate on more than 3,400 miles of railway and two of the nation's largest railroads, CSX Corporation and Norfolk Southern Corporation, have extensive infrastructure in the State
- 14 commercial airports serve the Commonwealth, including two of the nation's largest, Washington Dulles International and Ronald Reagan Washington National

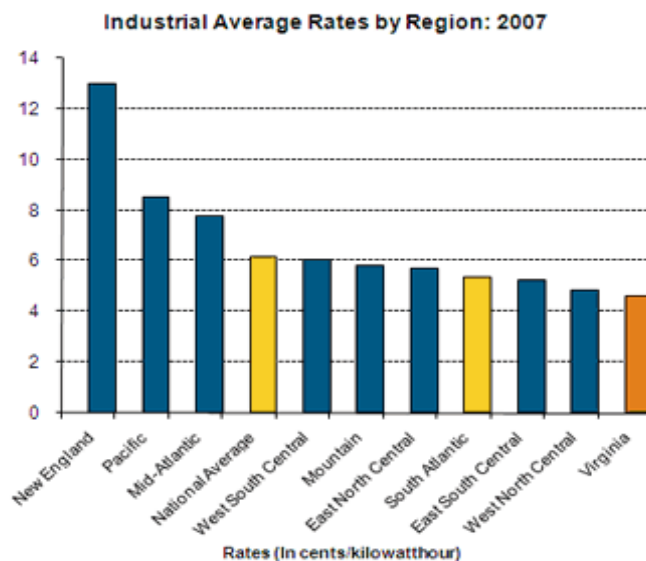


Virginia's Resources

- Stable energy resource pool to serve present and future residential, commercial, industrial and transportation needs
- 29 natural gas companies serve the State with an extensive network of underground pipes and other gas facilities
- One of the most connected states in the country with 18.62 million access lines, 6.15 million wireless telephone subscribers and over 2.69 million high-speed lines

South Atlantic Industrial Rates: 2007

The average cost per unit of electricity for the industrial sector is 4.63 cents in Virginia, compared to the 5.36 cents for the South Atlantic region and 6.15 cents for the nation.



Source: Edison Electric Institute, Typical Bills and Average Rates Report, Winter 2008

Corporate Headquarters in Virginia

Many of the Nation's Largest Companies Call Virginia Home

Virginia's pro-business climate, global access and talented workforce combine to make the ideal location for corporate headquarters. Virginia is home to more than thirty Fortune 1000 corporate headquarters and home to eight of Forbes America's Largest Private Companies.

Company	City	Revenues (\$millions)	Fortune 1000 rank
Advance Auto Parts	Roanoke	\$5,142.3	461
AES Corp.	Arlington	\$16,070.0	158
Alpha Natural Resources	Abingdon	\$2,554.1	762
Altria Group	Richmond	\$19,356.0	160
Amerigroup Corp.	Virginia Beach	\$4,516.0	509
Booz Allen Hamilton	McLean	\$4,100.0	n/a
CACI International	Arlington	\$2,730.2	798
Capital One	McLean	\$13,892.7	145
CarMax	Richmond	\$6,974.0	311
Carpenter Co.	Richmond	\$1,650.0	n/a
Computer Sciences Corp.	Falls Church	\$16,739.9	153
Dollar Tree, Inc.	Chesapeake	\$4,644.9	499
Dominion Resources	Richmond	\$16,290.0	157
DynCorp	Falls Church	\$3,101.1	868
Estes Express Lines	Richmond	\$1,394.6	n/a
FHC Health Systems	Norfolk	\$1,300.0	n/a
Freddie Mac	McLean	\$12,302.0	220
Gannett Co.	McLean	\$6,767.7	371
General Dynamics	Falls Church	\$29,300.0	83
Genworth Financial	Richmond	\$9,948.0	271
Hilton Worldwide	McLean	\$8,090.0	n/a
K-Va-T Food Stores	Abingdon	\$1,800.0	n/a
Landmark Communications	Norfolk	\$1,400.0	n/a
Mantech International	Fairfax	\$1,870.9	941
Markel Corp.	Glen Allen	\$1,898.3	924
Mars Inc.	McLean	\$30,000.0	n/a
Massey Energy	Richmond	\$2,989.8	689
MeadWestvaco	Glen Allen	\$6,637.0	365
NewMarket Corp.	Richmond	\$1,617.4	n/a
NII Holdings	Reston	\$4,269.4	530
Norfolk Southern	Norfolk	\$10,661.0	256
NVR Inc.	Reston	\$3,714.2	584
Orbital Sciences Corp.	Dulles	\$1,168.6	n/a
Owens & Minor	Mechanicsville	\$7,243.2	339
Performance Food Group	Richmond	\$10,000.0	n/a
SAIC, Inc.	McLean	\$10,070.0	266
Sallie Mae	Reston	\$7,689.4	331
Smithfield Foods	Smithfield	\$12,487.7	183
Southern States Cooperative	Richmond	\$2,103.6	n/a
SRA International	Fairfax	\$1,540.6	n/a
Sunrise Senior Living	McLean	\$1,701.6	990
The Brink's Co.	Richmond	\$3,163.5	600
Universal Corp.	Richmond	\$2,554.7	850
VSE Corp.	Alexandria	\$1,043.7	n/a
Watson Wyatt Worldwide	Arlington	\$1,676.0	980

XO Holdings	Herndon	\$1,477.6	n/a
Revenue data from fiscal year 2008 or the most recent fiscal year available. Sources: SEC Filings, Hoovers, company websites, 2009 Fortune 1000			

Virginia Offers Global Access

Virginia's Commercial Airports provide non-stop service to more than 140 destinations world-wide.

Daily Nonstop Flights, Average Travel Times			
From	To New York City	To Boston	To Chicago
Washington Dulles Int'l Airport	1 HR, 15 MIN	1 HR, 30 MIN	2 HR
Ronald Reagan Washington National Airport	1 HR, 15 MIN	1 HR, 30 MIN	2 HR
Richmond International Airport	1 HR, 30 MIN	1 HR, 40 MIN	2 HR, 12 MIN
Norfolk International Airport	1 HR, 30 MIN	1 HR, 40 MIN	2 HR, 25 MIN

Virginia has a Skilled and Talented Workforce

From an affordable lifestyle and competitive business environment to a skilled and ready labor force, Virginia is one of the most desirable places for business in America. Corporate headquarters in Virginia enjoy a business-friendly climate characterized by stable and competitive taxes, payroll costs, and lease rates, as well as legislation that protects "at will" employment practices.

Selected Occupations	Virginia Employment	Virginia Average Wage
Bookkeeping, accounting, and auditing clerks	48,760	\$36,206
Accountants and auditors	34,410	\$69,763
Customer service representatives	57,980	\$31,637
Executive secretaries and administrative assistants	25,530	\$47,234
Office clerks, general	124,330	\$29,006
Business operations specialists, all other	34,460	\$74,887
Computer systems analysts	33,590	\$91,151
Management analysts	39,140	\$91,463
Secretaries, except legal, medical, and executive	16,840	\$34,960
Computer support specialists	18,750	\$48,920
Financial analysts	6,800	\$78,288
Computer software engineers, applications	31,830	\$94,340
Billing and posting clerks and machine operators	13,390	\$33,907
Market research analysts	8,870	\$70,488
Computer programmers	12,650	\$81,565
Network systems and data communications analysts	14,160	\$82,943
Payroll and timekeeping clerks	4,360	\$36,648
Receptionists and information clerks	29,570	\$25,993
Compensation, benefits, and job analysis specialists	3,170	\$60,567
Human resources assistants, except payroll and timekeeping	5,110	\$40,810
Employment, recruitment, and placement specialists	5,670	\$55,853

Recent Headquarters Announcements (Corporate, Regional, or Division)

Since 2000, over 430 companies have announced more than 590 corporate, regional, or division headquarters relocations or expansions in Virginia to create over 64,000 jobs and \$5.2 billion in capital investment. Listed below are a few of the top headquarters announcements made recently.

Company Name	Location
Admiral America	Henrico Co.
AREVA NP Inc.	Lynchburg
Bostwick Laboratories	Henrico Co.
Canon Virginia, Inc.	Newport News
GridPoint, Inc.	Arlington Co.
Hilton Worldwide	Fairfax Co.
MeadWestvaco Corp.	Richmond
Orbital Sciences Corporation	Loudoun Co.
Rolls-Royce	Fairfax Co.
SAIC, Inc.	Fairfax Co.
Volkswagen of America, Inc.	Fairfax Co.

Education and Training

Virginians themselves play a vital role in the Commonwealth's success as a top business location. With one in three Virginians holding a bachelor's or advanced degree, the state's workforce is one of the nation's most educated. Some of the nation's best colleges and universities are located in Virginia – many offering undergraduate and graduate programs in all areas of business. Corporations also benefit from Virginia's community college system, which works with companies to develop customized workforce training programs for employees.

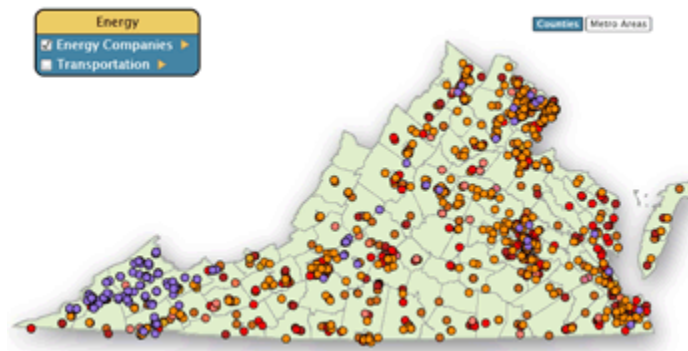
2007-2008 Select Degrees Conferred in Business and Related Programs at Virginia Universities and Colleges*	
Program Name	Total
Accounting	1,523
Business Administration and Management	7,548
Finance	781
Management and Related	793
Management Information Systems	214
Managerial Economics/Operations	1,671
Marketing	868
Other Business Related	892
Other Related Degrees:	
Law	311
Communications	1958
Math/Statistics	572
Computer and Information Sciences	1,216
Electrical/Electrical Engineering	551
Information Science/Studies	465
Systems Engineering	307
Computer/Software Engineering	269
Computer Science	198
Information Technology	95
Total Business and Related Degrees Conferred	20,232
Source: State Council of Higher Education for Virginia, www.schev.edu *Data available only for universities reporting to SCHEV	
U.S. News & World Report 2009 Rankings	
Top Public National Universities	Rank

University of Virginia	2
College of William and Mary	6
Virginia Tech	29
Best Undergraduate Business Programs	Rank
University of Virginia (McIntire)	6
Virginia Tech (Pamplin)	42
College of William and Mary (Mason)	48
Best Graduate Business Schools	Rank
University of Virginia (Darden)	15
College of William and Mary (Mason)	55
Best Law Schools	Rank
University of Virginia	10
College of William and Mary (Marshall-Wythe)	28
Washington and Lee University	30
George Mason University	41
University of Richmond (Williams)	77

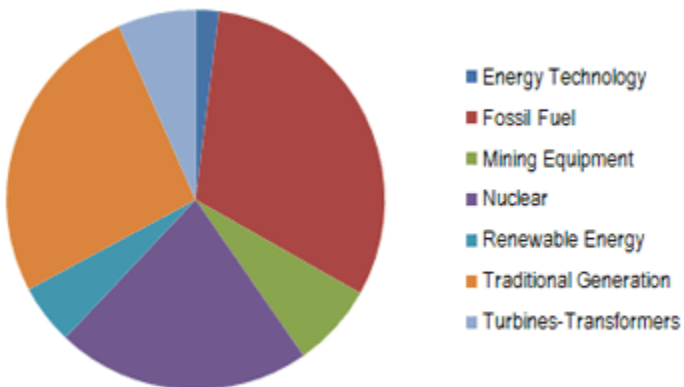
Virginia's Energy Industry

- Employs more than 30,000
- Electricity generated by fossil fuels, nuclear power, biomass, methane, hydroelectric, and municipal waste
- Consists of 384 companies with 631 establishments, including: 250 in the Fossil Fuel sector and 238 in the Traditional Generation sector
- Has a direct economic output of \$16 billion
- Central location on the Atlantic Coast provides interstate and rail access to the Northeast, Southeast, and Midwest
- Access to international markets provided by the Port of Hampton Roads and Washington-Dulles International Airport

[Click Graphic for Interactive Map](#)

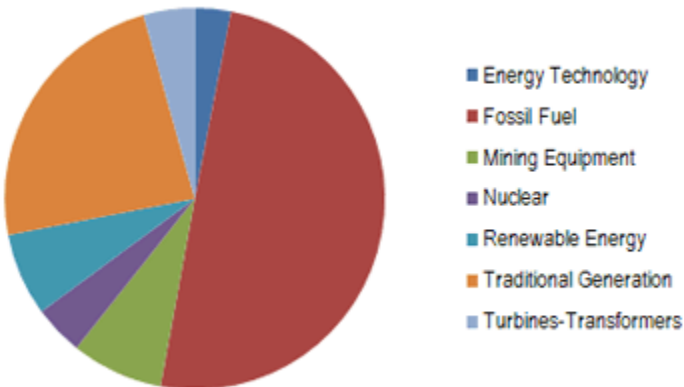


Energy Industry Employment in Virginia, 2008



Virginia's Energy Industry employs more than 30,000 people. The top three Energy sectors by employment are Fossil Fuel (9,400), Traditional Power Generation (7,900), and Nuclear (6,500). These three sectors comprise 79% of Virginia's Energy Industry employment. Virginia's Energy Industry covers traditional sectors such as power generation and mining, as well as emerging areas like smart grid technology and renewable fuels. The economic output of Virginia's Energy Industry is \$16 billion. Energy supports an additional \$7 billion in economic activity in Virginia.

Energy Industry Firms in Virginia, 2008



Virginia is home to 384 Energy companies with 618 locations. The top sectors for companies in the Energy Industry are Fossil Fuel (192), Traditional Power Generation (91), Mining Equipment (30) and Renewable Energy (27). These four sectors comprise 88% of Virginia's Energy companies.

Major Energy Companies in Virginia

Major Energy Companies in Virginia
ABB
AEP
AES
Allegheny Energy
Alpha Natural Recourses
AREVA
Babcock & Wilcox
BP Wind America
Bucyrus
Columbia Gas
Consol
Covanta
DBT America
Delta Star
Delta-T
Dominion
ExxonMobil
GE
H2Gen
Halliburton
Joy Mining Machinery
Liebherr Mining Equipment
Line Power
Massey Resources
Paramont Coal
PEMCO
PEPCO

Toshiba America Nuclear Energy
Virginia Transformer
Western Refining

New and Expanding Energy Companies in Virginia

In the past ten years, 61 Energy Industry projects have announced more than 3,600 new jobs and investment of \$4.6 billion.

Recent major announcements
ABB
American Wood Fibers
AREVA
Babcock & Wilcox
Dominion
Equitable Resources
H2Gen Innovations
Osage Bio Energy
Synergy Biofuels
Western Refining

Virginia's Skilled Workforce

Selected Energy Products Occupations	Virginia Employment	Virginia Mean Wage	U.S. Mean Wage
Computer hardware engineers	1,950	\$48.30	\$48.16
Computer programmers	12,650	\$38.48	\$35.32
Computer software engineers, systems software	26,060	\$51.32	\$45.44
Computer systems analysts	33,590	\$43.00	\$37.90
Electrical and electronic engineering technicians	5,610	\$27.09	\$25.96
Electrical and electronic equipment assemblers	4,510	\$14.28	\$14.14
Electrical and electronics repairers, powerhouse, substation, and relay	850	\$28.54	\$29.18
Electrical engineers	7,270	\$41.55	\$41.04
Electronics engineers, except computer	4,930	\$45.08	\$42.63
Industrial engineers	5,270	\$38.46	\$36.41
Industrial machinery mechanics	7,200	\$21.04	\$21.77
Machinists	7,250	\$17.76	\$18.03
Mechanical engineers	8,510	\$42.86	\$37.59
Mechanical engineering technicians	1,070	\$21.96	\$24.06
Nuclear engineers	1,660	\$50.10	\$47.96
Petroleum engineers	210	\$49.55	\$57.28
Power plant operators	570	\$24.76	\$28.05

Education and Training

The Virginia Community College System provides education and training programs for Virginians and Virginia businesses. Dabney S. Lancaster Community College in Covington has developed a Wind Turbine Service Technician program. Degree programs include:

- CAD/CAM
- Engineering Technology

- Industrial Electronics
- Industrial Production
- Industrial Technology
- Mechanical Engineering Technologies
- Mining Technology
- Welding

Virginia's annual labor force growth includes over 16,000 skilled workers exiting the military each year.

Food Processing in Virginia

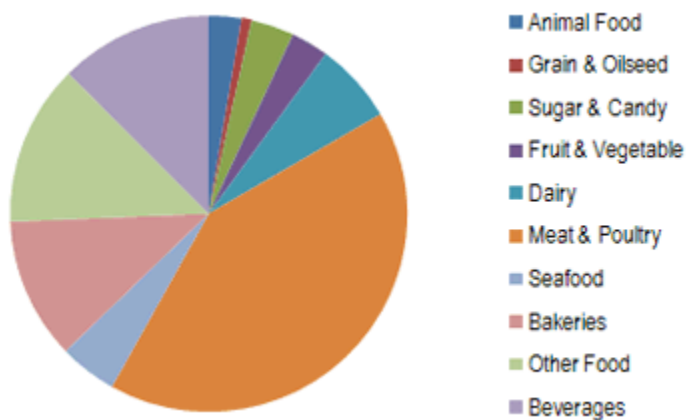
Virginia has the Recipe for Success

Since 1999, Food Processing companies have invested \$2.04 billion and created more than 6,110 new jobs. Recent major announcements include: Tyson Foods, Kraft (Nabisco and Planters Divisions), Dr. Lucy's, Sabra Dipping Company, WhiteWave/Hero, Unilever Lipton, MillerCoors, Hershey, Massimo Zanetti, Maple Leaf Bakery, Gatorade, Nestle, Mother Parkers Tea and Coffee, Prime Choice Foods, Pepsi Bottling Group, and Icelandic Seafood.

Virginia's Food Processing Industry

- One of Virginia's largest manufacturing sectors
- Employs more than 34,700
- Direct economic output of \$18.2 billion
- Offers a wealth of excellent power, water, and other business infrastructure resources
- Sales and use tax exemptions on production-related machinery and equipment, all utilities, and materials used in production
- Central location on the Atlantic Coast provides interstate and rail access to the Northeast, Southeast, and Midwest
- Access to international markets provided by the Port of Hampton Roads and Washington-Dulles International Airport

Food Processing Industry Employment in Virginia, 2008



In 2008, Virginia's Food Processing industry employed 34,777 people. The Food Processing industry accounted for 12.7% of Virginia's total manufacturing employment of 272,772, and is the second largest sector behind Transportation Equipment. The top three Food Processing sectors by employment are Meat & Poultry Processing (14,429), Other Food Manufacturing (4,559) and Beverage Manufacturing (4,353). Of the total, these three sectors account for 41%, 13%, and 13% respectively. Virginia's Food Industry has a direct economic output of \$18.2 billion and supports an additional \$14.8 billion in economic activity.

Food Processing Industry Firms in Virginia, 2008

There are 498 Food Processing firms in Virginia. The largest sectors are Bakeries and Tortilla Manufacturing with 156 firms, followed by Beverage Manufacturing with 110 firms and Other Food Manufacturing with 53 firms. Of the total, these three account for 31%, 22%, and 11%, respectively.

10 Largest Food Processing Employers in Virginia
Gwaltney of Smithfield

Perdue
Tyson
Cargill
Kraft
McKee Foods
Hershey
George's Chicken
Anheuser Busch
Boar's Head Provisions

Virginia's Skilled Workforce

Selected Food Processing Occupations	Virginia Employment	Virginia Mean Wage	U.S. Mean Wage
General & Operations Managers	40,670	\$57.48	\$51.91
Industrial Production Managers	2,360	\$44.82	\$43.85
First-Line Supervisors	13,510	\$25.76	\$25.72
Bakers	2,530	\$12.34	\$12.03
Food Batchmakers	1,640	\$12.19	\$12.64
Food Cooking Machine Operators & Tenders	1,100	\$12.06	\$11.59
Machinists	7,250	\$18.08	\$18.03
Mixing & Blending Machine Setters, Operators & Tenders	3,690	\$15.52	\$15.70
Inspectors, Testers, Sorters, Samplers & Weighers	10,500	\$16.66	\$16.29
Packaging & Filling Machine Operators & Tenders	6,480	\$11.67	\$12.76
Truck Drivers or Light Delivery Service	24,110	\$13.75	\$14.55
Laborers & Material Movers	49,040	\$11.69	\$11.87
Packers	17,190	\$9.53	\$10.15

Education and Training

Virginia's nationally acclaimed education system serves as a pipeline, supplying businesses with a steady stream of skilled new entrants. Our attention to education is reflected in Virginia's superior, well-prepared labor force.

- Elementary and secondary schools rank among the best in the nation
- Over 1.2 million students enrolled in elementary and secondary schools with approximately 82,000 graduating annually
- More than 80% of graduating seniors continue their education in a two- or four-year degree program or have other continuing education plans

Strong occupational and technical training programs designed to meet the needs of the Food Processing Industry are provided by Virginia's colleges and universities, Community College System, and communities.

- Virginia Tech's Department of Food Science and Technology offers undergraduate and graduate degrees, research, and an extension program
- Virginia Tech's Department of Food Science and Technology's Value Added Product Development division offers access to a packaging and processing pilot plant, among other resources ranging from financial assistance to food safety regulatory assistance
- Virginia Tech's Department of Human Nutrition, Foods and Exercise routinely works hand-in hand with Food Sciences and Technology to jointly address issues on nutritional value and product development/packaging

- The Virginia Community College System offers manufacturing, technology, engineering and related programs
- Dabney S. Lancaster Community College, home to the Virginia Packaging Application Center, offers an Advanced Manufacturing and Packaging Technology curriculum
- The Center for High Performance Manufacturing (CHPM) at Virginia Tech works to help manufacturing firms stay competitive

Virginia is a Leading Gateway to the World

- Two of the nation's largest railroads, CSX Corporation and Norfolk Southern Corporation, have extensive infrastructure throughout the State
- Fourteen railroads operate on more than 3,400 miles of railway in Virginia, of which more than 3,100 miles are Class I—one of the strongest rail networks in the nation
- Six major interstate highways, I-95, I-85, I-81, I-64, I-77 and I-66, provide quick access to Northeast, Southeast and Midwest markets
- 14 commercial airports serve the Commonwealth, including two of the nation's largest, Washington Dulles International and Ronald Reagan Washington National
- The Port of Virginia offers world-class shipping facilities and a schedule of approximately 3,000 sailings annually to over 250 ports in 100 foreign countries.

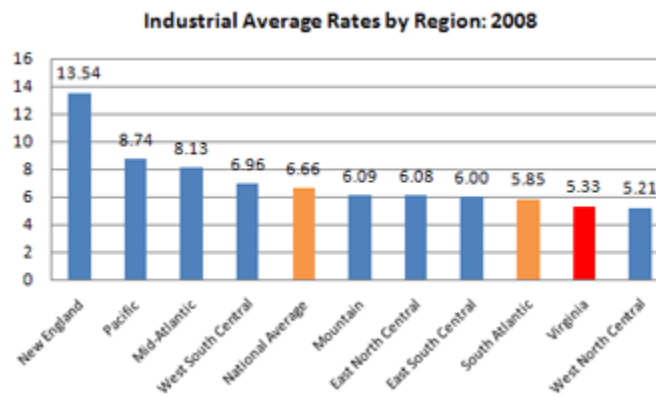


Virginia's Resources

- Stable energy resource pool to serve present and future residential, commercial, industrial and transportation needs
- 10 natural gas companies serve the State with an extensive network of underground pipes and other gas facilities
- Highly skilled and productive workforce - ranks among the top ten states in labor productivity

Average Industrial Rates: 2008

The average cost per unit of electricity for the industrial sector is 5.33 cents in Virginia, compared to the 5.85 cents for the South Atlantic region and 6.66 cents for the nation.



The New Hub For Global Logistics

Virginia is a Leading Gateway to the World

A pro-business climate combined with state of the art facilities at the Port of Virginia and APM/Maersk Terminal, and extensive transportation infrastructure makes Virginia an ideal location for global logistics operations. It's no wonder that over 240 major companies have set-up distribution centers here.

- The Port of Virginia handles over 2 million TEUs annually and is home to the largest and fastest container cranes in the world.
- Fourteen railroads operate on more than 3,500 miles of railway in Virginia, of which 3,147 miles are Class I—one of the strongest rail networks in the nation.
- Two of the nation's largest railroads, CSX Corporation and Norfolk Southern Corporation, have extensive infrastructure throughout the State.
- Six major interstate highways spanning over 5,400 lane miles and direct, double-stacked rail connections provide quick access to Northeast, Southeast and Midwest markets.
- 14 commercial airports serve the Commonwealth, including Washington Dulles International with non-stop service to over 30 international destinations.
- Over 73,000 people work in Virginia's Global Logistics industry and produce \$8.9 billion in economic output.

Import/Export Opportunities

The Port of Virginia is the second largest intermodal facility on the East Coast, and due to natural harbor depth and Suez-class cranes, it is the only East Coast location capable of handling post-Panamax vessels as first port of call. The Port of Virginia has 11,000 feet of on-dock rail track and a channel depth of 50 feet, and it boasts 22-day transit from Asia.

The Port offers a schedule of approximately 3,000 sailings annually to more than 250 ports in 100 foreign countries. Its facilities consists of:

- Newport News Marine Terminal
- Norfolk International Terminals
- Portsmouth Marine Terminal
- Virginia Inland Port in Front Royal
- APM/Maersk Terminal in Portsmouth

The Port of Virginia currently handles over 2 million TEUs. By 2017, activity at the new APM/Maersk Terminal will push the container volume capacity to over 4 million TEUs. The Craney Island Marine Terminal under construction will take the container volume to 8.4 million TEUs by 2032.

The Port of Richmond is 78 miles upriver from Newport News and provides convenient access to I-95 and is supported by CSX and Norfolk Southern.

Six Port of Entry facilities and one Service Port facility also serve Virginia businesses: Front Royal, Newport News, New River Valley Airport in Dublin, Norfolk (Service Port), Richmond-Petersburg, Tri-Cities near Bristol in Northeastern Tennessee and Washington-Dulles in Northern Virginia.

Rail Access in Virginia

Norfolk Southern and CSX offer comprehensive freight transportation service. These two rail lines provide direct, thorough coverage of states east of the Mississippi River and provide transfer opportunities in major Midwest cities. Norfolk Southern's expanded Heartland Corridor route will eliminate over 200 miles for Chicago-bound trains and will significantly reduce shipping time

and costs.



Virginia's Global Logistics Industry

In 2008, Virginia's Global Logistics Industry employed more than 73,000 people, primarily in Trucking (22,000), Warehousing (20,100), and Transportation Support (14,800). The economic output of Virginia's Global Logistics Industry totals \$8.9 billion. Global Logistics supports an additional \$6.5 billion in economic activity in Virginia.

New and Expanding Global Logistics Companies in Virginia

In the past ten years, 426 Global Logistics Industry projects have announced over 21,000 new jobs and capital investment of \$2.1 billion.

Recent major announcements include:	
Company Name	Location
Ace Hardware	Prince George Co.
Dollar Tree Stores	Chesapeake
Evergreen Enterprise	Richmond
Fresh Tulips USA, LLC	Culpeper Co.
GlaxoSmithKline	Chesterfield Co.
Goya Foods	Prince George Co.
HSN	Roanoke Co.
Harris Teeter, Inc.	King George Co.
Home Depot (2)	Frederick Co.
J. Crew	Lynchburg
Massimo Zanetti Beverage USA	Portsmouth
Mazda Motor Corp.	Chesterfield Co.
Moss Motors, Ltd.	Dinwiddie Co.
NYK Logistics Inc.	Chesapeake
Owens & Minor	Hanover Co.
QVC	Chesapeake
Saeco Products Company	Isle of Wight Co.
SYSCO (2)	Multiple
Target (2)	Multiple

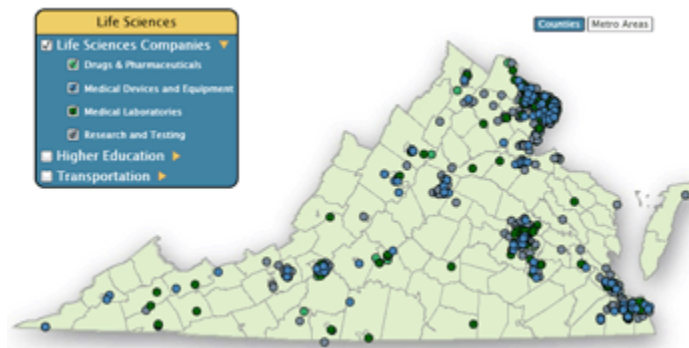
Virginia's Pro-Business Operating Environment

The Commonwealth of Virginia offers companies a favorable business environment characterized by a stable, competitive tax structure and legislation that protects "at will" and "right-to-work" employment practices.

- Worker's compensation and unemployment insurance payroll expenses are consistently among the lowest in the nation
- 6% corporate income tax accounts for less than 10% of total state tax revenues and has not changed in over thirty years
- Manufacturers receive broad sales tax exemptions for purchases of machinery, tools, replacement parts and raw materials used in the production process, as well as all utilities delivered through pipes, mains, and lines for all purposes
- Virginia does not tax accounts receivable, inventory, computer software or other intangibles, and does not levy a license tax on gross receipts
- The primary local taxes apply to real estate and machinery and equipment
- There are no school taxes in Virginia
- Virginia has extremely reliable electric service at very competitive rates—average cost per unit of electricity for the industrial sector is 4.63 cents in Virginia, compared to 6.15 cents for the nation
- Unsurpassed quality of life—healthcare, educational and recreational benefits for families rank among the finest available anywhere in the United States

Life Sciences in Virginia

In an increasingly competitive environment, life sciences firms worldwide face complex challenges in the development and commercialization of new health care, food production, environmental protection and biodefense products, technologies, and services. Virginia is well-positioned to lead in supporting life sciences research, development and commercialization because the state offers proximity to strong research institutions, a deep knowledge-based workforce and a mature savvy IT industry. A number of life sciences firms are finding success thanks to the supportive business environment in the Commonwealth of Virginia.

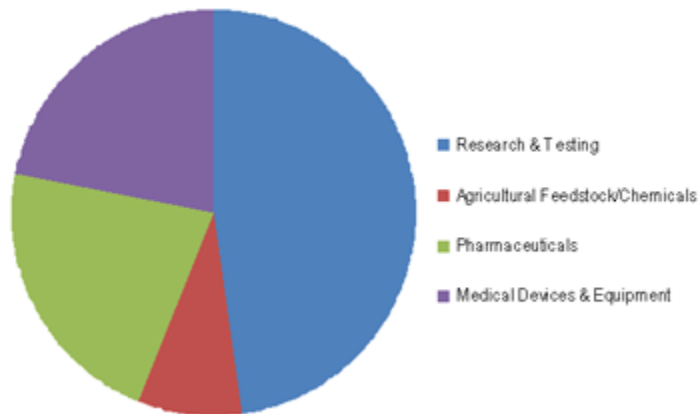


Life Sciences Employment in Virginia

Based on the definition used by Battelle for BIO, the Virginia life sciences industry measured here is composed of pharmaceutical manufacturing, medical device manufacturing, research and testing services, and certain agricultural feedstock-chemical manufacturing. Healthcare providers are not included in this definition.

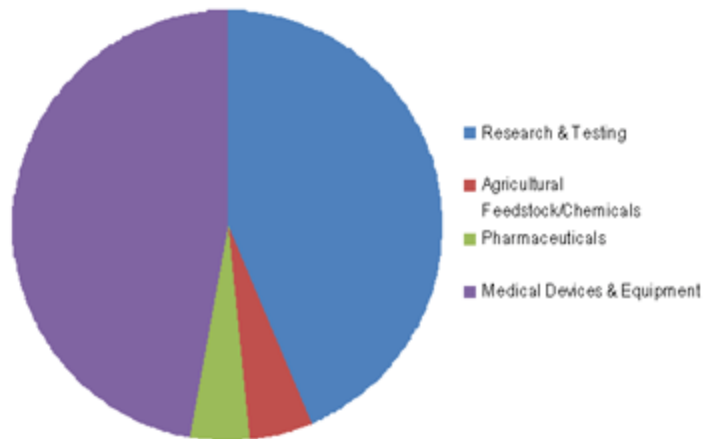
The National Science Foundation reports that almost 20,000 doctoral scientists and engineers are employed in Virginia—the tenth largest concentration in the nation. In terms of employment, in 2008, the life sciences industry accounted for more than 16,200 jobs in Virginia at an average salary of \$77,675. The Research and Testing sub sector clearly comprises the largest share of life sciences overall employment at 48% (7,778 jobs). Next is the Pharmaceuticals sub sector with 22% (3,606 jobs) of the industry's employment. The Medical Device Manufacturing subsector also employs 22% of life sciences jobs (3,562 jobs). Finally, Agricultural Feedstock/Chemicals comprises the smallest share of industry employment at 8%, or 1,338 jobs.

The economic output of Virginia's Life Sciences Industry is \$6.7 billion. Life Sciences supports an additional \$4.5 billion in economic activity in Virginia.



Life Sciences Firms in Virginia

In 2008, the Virginia life sciences industry was comprised of approximately 700 firms. The Medical Devices and Equipment sub sector accounts for the largest share of life sciences firms with 47% of the industry (332 firms). Next is the Research and Testing sub sector with 307 firms (44% share). The Agricultural Feedstock/Chemicals sub sector accounts for 5% of life sciences firms in Virginia (33 firms). Finally, Pharmaceuticals is the smallest sector with 4% of industry-related firms (30).



Major Life Sciences Companies in Virginia

There are approximately 700 life sciences companies providing services to the private and government sectors in the Commonwealth. Listed below are the top 20 life sciences companies in Virginia, ranked by employment.

Company Name	Employment Range
Quest Diagnostics Inc.	1,000 - 1,499
Laboratory Corporation of America	500 - 999
Merck & Co., Inc.	500 - 999
Wyeth	500 - 999
Jefferson Science Associates, LLC	500 - 999
Abbott Laboratories	500 - 999
Teva Pharmaceuticals	500 - 999
Covance Laboratories Inc.	500 - 999
ODU Research Foundation	500 - 999
Carilion Consolidated Laboratory	500 - 999
Virginia Institute of Marine Science	500 - 999
Hollister Inc.	250 - 499
Battelle Memorial Institute	250 - 499
Coopervision Inc.	250 - 499
Boehringer Ingelheim GmbH	250 - 499
Bostwick Laboratories Inc.	250 - 499
Pharmaceutical Research Associates	250 - 499
AVID Medical	250 - 499
C. B. Fleet Inc.	250 - 499
American Type Culture Collection	250 - 499

New and Expanding Life Sciences Companies in Virginia

Over the past decade, the private sector has announced over 5,550 new jobs and \$2.34 billion investment for life science research, development and manufacturing in Virginia. Recent key announcements include:

Company Name and Location	Announced Investment
The Ignite Institute, Fairfax County	\$200 million
Covance, Prince William County	\$175 million
Merck & Company, Rockingham County	\$379 million
SRI International's Center for Advanced Drug Research, Shenandoah Valley	\$19 million
Barr Laboratories, Bedford County	\$62 million

Virginia's Life Sciences Workforce

Occupation	Virginia Employment	Virginia Average Wage	U.S. Average Wage
Biochemists and Biophysicists	220	\$71,050	\$88,450
Biological Technicians	530	\$41,470	\$40,900
Chemists	1,890	\$73,750	\$71,070
Computer Support Specialists	18,750	\$48,000	\$46,370
Inspectors/Testers	10,500	\$34,640	\$33,890
Separating, Filtering, Clarifying, etc.	1,260	\$39,230	\$38,010
First-Line Supervisors	13,510	\$53,580	\$53,500

Virginia's Life Sciences Research Institutes and Resources

- Virginia Institute of Marine Science, College of William & Mary
- Virginia Bioinformatics Institute, Virginia Tech
- National Center for Biodefense and Infectious Diseases, George Mason University
- Howard Hughes Medical Institute
- SRI International's Center for Advanced Drug Research (CADRE)
- Carilion Biomedical Institute
- Virginia BioTechnology Park

Major Life Sciences Research Universities

- University of Virginia
- Virginia Tech
- Virginia Commonwealth University
- Eastern Virginia Medical School
- George Mason University

Education in the Life Sciences Workforce

Virginia universities are graduating significant numbers of students with the technical skills that life science and pharmaceutical companies need. In Virginia, one in every three adults holds a bachelor's or advanced degree, and over 80 percent of all high school students continue their education after graduation.

There are seven Carnegie Foundation classified "doctoral high and very high activity" research universities, four academic medical centers, and a college of veterinary medicine in the Commonwealth to prepare students for life sciences careers. Annual enrollment in Virginia institutions of higher education totals over 500,000. These universities graduate significant numbers of students with the technical skills that life science companies need.

Selected Life Sciences and Engineering Degrees Awarded 2008-2009	
Degrees	Total
Biochemistry & Biophysics	174
Bioengineering/Biomedical	182
Biology/Biomedical Sciences	2,897
Biostatistics	45
Chemical Engineering	147
Chemistry	528
Health Profession & Related Clinical Sciences	7,565
Mechanical/Industrial/Manufacturing Engineering/Technologies	1,314
Microbiology/Bacteriology	28
Other Technicians	771

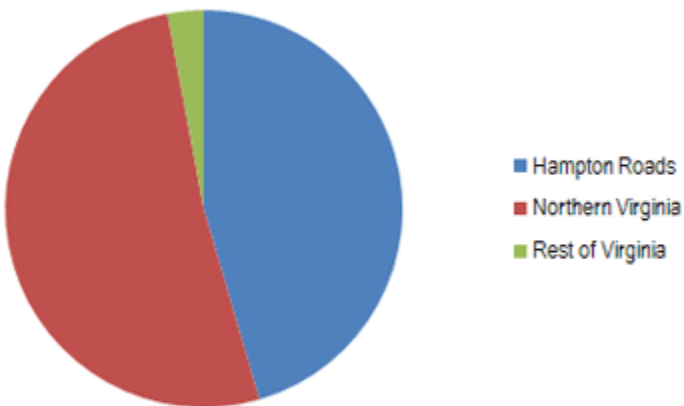
Pharmacy/Pharmacology	338
Total Life Science and Related Degrees Awarded	13,989

Source: State Council for Higher Education for Virginia
 *Data available only for universities reporting to SCHEV

Virginia's Modeling and Simulation

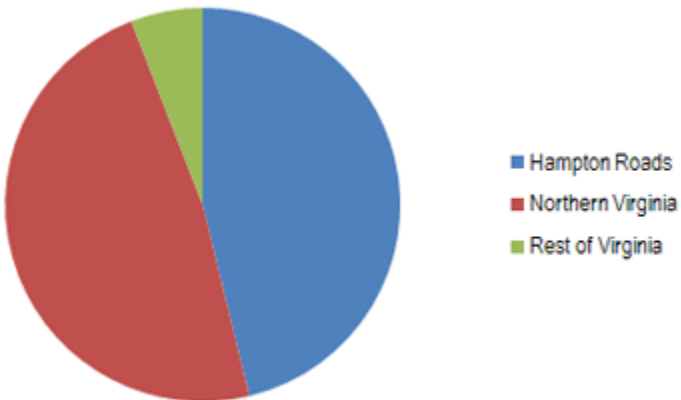
- Employs 11,500 people in the private sector
- Government and military Mod-Sim employment is estimated at 2,900 people
- Consists of 190 companies with 250 locations
- Ranks second in the nation for U.S. Department of Defense Prime Contracts (\$36.7 billion in FY 2008)
- Has a direct economic output of \$1.6 billion
- Central location on the Atlantic Coast provides interstate and rail access to the Northeast, Southeast, and Midwest
- Access to international markets provided by the Port of Hampton Roads and Washington-Dulles International Airport

Modeling and Simulation Industry Employment in Virginia, 2008



In 2008, Virginia's Modeling and Simulation Industry employed 11,500 people. The top two Mod-Sim regions by employment are Northern Virginia (5,900) and Hampton Roads (5,200). These two regions account for 97% of all Mod-Sim Industry employment in Virginia. These numbers are for private sector employment in Virginia's Mod-Sim Industry. Government and military Mod-Sim employment is estimated at 2,900. The economic output of Virginia's Mod-Sim Industry is \$1.6 billion. Mod-Sim supports an additional \$1.3 billion in economic activity in Virginia.

Modeling and Simulation Industry Firms in Virginia, 2008



Virginia is home to 190 Mod-Sim companies with 250 locations. The top two regions for the Mod-Sim Industry are Northern Virginia (91) and Hampton Roads (88). These two regions comprise 94% of Virginia's Mod-Sim companies.

Major Modeling and Simulation Companies in Virginia

Virginia has 190 companies applying Mod-Sim technology to diverse industries such as defense, health care, aerospace, transportation, and entertainment.

Major Mod-Sim Companies in Virginia
Alion
Allied Technology Group
Axiom
Boeing
Booz Allen Hamilton
CACI
Computer Sciences Corp.
Cubic
Electronic Arts
General Dynamics
L-3 Communications
LMI
Lockheed Martin
MITRE
Northrop Grumman
Professional Software Engineering
Rockwell Collins
Raytheon
SAIC
SI International

New and Expanding Modeling and Simulation Companies in Virginia

In the past five years, 16 Mod-Sim projects have announced over 1,200 new jobs and investments of \$51 million.

Recent major announcements include:
Applied Research Associates
Atmospheric and Environmental Research
Boeing
General Dynamics
Science Systems and Applications
PROSOFT
Valador

Virginia's Skilled Workforce

Selected Modeling & Simulation Occupations	Virginia Employment
Computer and information scientists, research	2,660
Computer hardware engineers	1,950
Computer programmers	12,060
Computer software engineers, applications	31,830
Computer software engineers, systems software	26,060
Computer support specialists	18,750
Computer systems analysts	33,590
Database administrators	5,450
Electrical and electronic engineering technicians	5,610
Electrical and electronic equipment assemblers	4,510
Electrical and electronics repairers, commercial and industrial equipment	2,060
Electrical engineers	7,270
Electromechanical equipment assemblers	1,290
Electronics engineers, except computer	4,930
Network systems and data communications analysts	14,160

Education and Training

Old Dominion University in Norfolk, Virginia developed the world's first doctorate program for Mod-Sim and also offers Mod-Sim programs for masters and bachelor's degrees. George Mason University offers a B.S. in Computer Game Design. Other Virginia universities involved in Mod-Sim include:

- Christopher Newport University
- Hampton University
- James Madison University
- Norfolk State University
- The College of William and Mary
- University of Virginia
- Virginia Commonwealth University
- Virginia Tech

The Virginia Community College System provides education and training programs for Virginians and Virginia businesses.

Tidewater Community College offers an Associate of Applied Science degree program in modeling and simulation. The two-year program includes cooperative education experiences with Mod-Sim companies so students can gain real-world skills.

Other technical degree programs at Virginia's community colleges include :

- CAD/CAM
- Computer Sciences/Information Technology/Management Information Systems
- Electrical and Electronic Engineering Technologies
- Industrial Electronics
- Industrial Technology
- Mechanical Engineering Technologies

Virginia's Research and Development Assets

Virginia is home to numerous R&D facilities which support modeling and simulation, including:

- Defense Advanced Research Projects Agency
- Defense Modeling and Simulation Office
- Emergency Management Training, Analysis and Simulation Center
- Joint Training, Analysis, and Simulation Center
- NASA Langley Research Center
- National Center for Collaboration in Medical Modeling and Simulation
- National Crash Analysis Center
- Old Dominion University's Langley Full Scale Wind Tunnel
- The Virginia Modeling, Analysis and Simulation Center
- Virginia Tech Modeling and Simulation Center for Collaborative Technologies

Virginia's Government and Military Assets

Virginia receives the second highest amount of U.S. Department of Defense Prime Contracts (\$29.3 billion) behind California. The number of military bases and government offices in Virginia shows the importance of the federal government to Virginia. Over 16,000 people exit the U.S. military from bases in Virginia each year.

- The Pentagon
- Central Intelligence Agency
- Department of Homeland Security
- Ballistic Missile Defense Organization
- Defense Technical Information Center
- Fort A.P. Hill

- Fort Belvoir
- Fort Eustis
- Fort Lee
- Joint War Fighting Center
- Joint Battle Center
- Langley Air Force Base
- Military Transportation Management Command - Transportation Engineering Agency
- National Ground Intelligence Center
- National Reconnaissance Office
- Naval Air Station, Oceana
- Naval Sea Systems Command
- Naval Surface Warfare Center, Dahlgren
- Navy Commander Operational Test and Evaluation Force
- Norfolk Naval Base
- Office of Naval Research
- Quantico
- Space and Naval Warfare Center
- U.S. Army Training and Doctrine Command
- U.S. Joint Forces Command

Plastics & Advanced Materials

Virginia's strategic mid-Atlantic location, superior transportation network and competitive operating costs combine to make an ideal location for Plastics & Advanced Materials companies. Virginia is home to more than 200 plastics companies, employing more than 24,800 Virginians.

Since 1999, Plastics & Advanced Materials companies have invested \$2.0 billion and created more than 11,000 new jobs in Virginia. Recent major announcements include: Amcor PET Packaging, E. I. DuPont De Nemours & Co. Inc., Essel Propack, Graham Packaging, Intertape Polymer, Klockner Pentaplast, Printpack, Rubbermaid Commercial Products, Strongwell and The Matrixx Group.

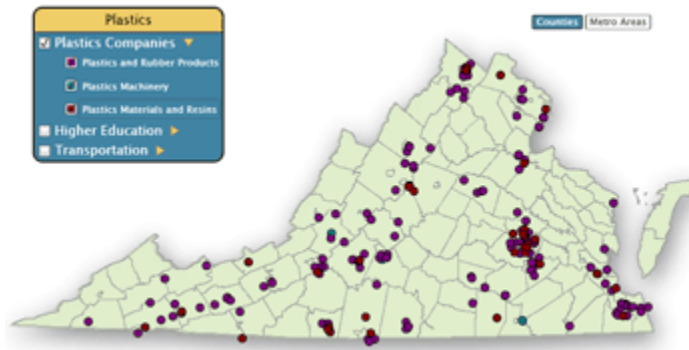
Virginia's Plastics & Advanced Materials Companies Include:

- Plastics material and fiber manufacturers
- Film/sheet manufacturers
- Blow molders
- Injection molders
- Pipe/profile manufacturers
- Thermoformers
- Equipment manufacturers
- Rubber companies

Virginia's Plastics & Advanced Materials Industry

- Direct economic output of \$10.6 billion
- Ranked second in U.S. in film and sheet manufacturing employment and new capital expenditures

Major Plastics & Advanced Materials Employers
Alloy Polymers
Amcor
Azdel Composites and Material Solutions
CP Films
DuPont
Honeywell
Invista
Klockner Pentaplast
Printpack
Reynolds Packaging Group
Rubbermaid Inc.
Strongwell
Tessy
Universal Fibers



Virginia is a Leading Gateway to the World

- Two of the nation's largest railroads, CSX Corporation and Norfolk Southern Corporation, have extensive infrastructure throughout the State
- Fourteen railroads operate on more than 3,400 miles of railway in Virginia, of which more than 3,100 miles are Class I—one of the strongest rail networks in the nation
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- 14 commercial airports serve the Commonwealth, including two of the nation's largest, Washington Dulles International and Ronald Reagan Washington National
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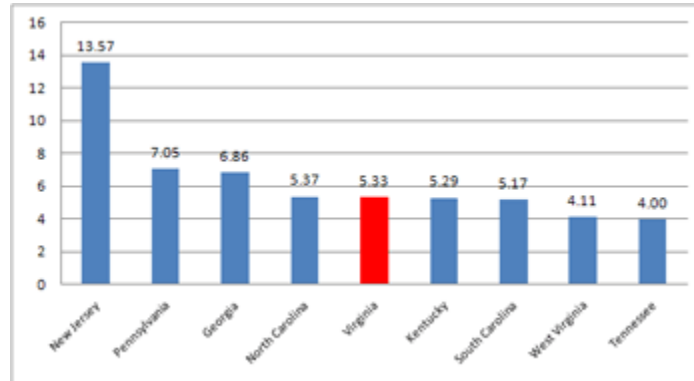
Virginia's Central East Coast Location—Access to Markets



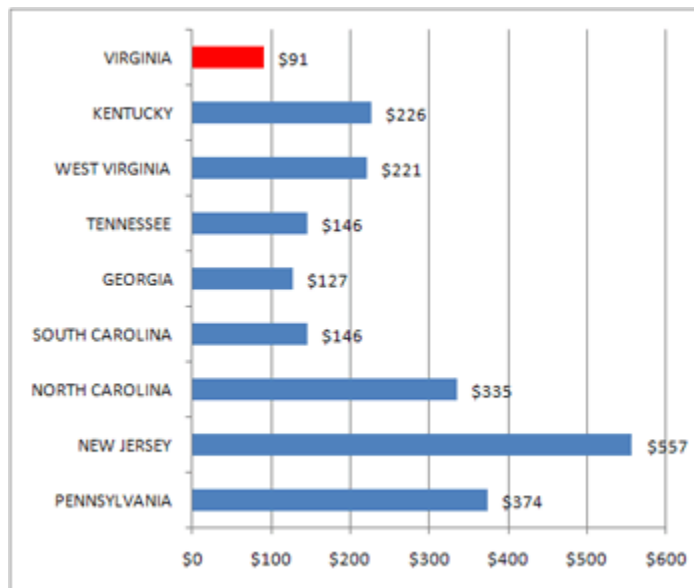
Virginia's Competitive Operation Costs

- The average cost per unit of electricity for the industrial sector is 5.33 cents in Virginia, compared to 6.66 cents for the nation
- Virginia manufacturers have one of the lowest average workers' compensation costs in the country. At \$2.08 per \$100 of payroll in January 2008, it ranks 3rd lowest nationally and is 47 percent lower than the U.S. average.
- Unemployment tax burden that is 42 percent lower than the national average
- 6 percent corporate income tax rate has not been increased since 1972
- Right-to-work law allows individuals the right to work regardless of membership in a labor union or organization

South Atlantic Industrial Electric Rates: 2008

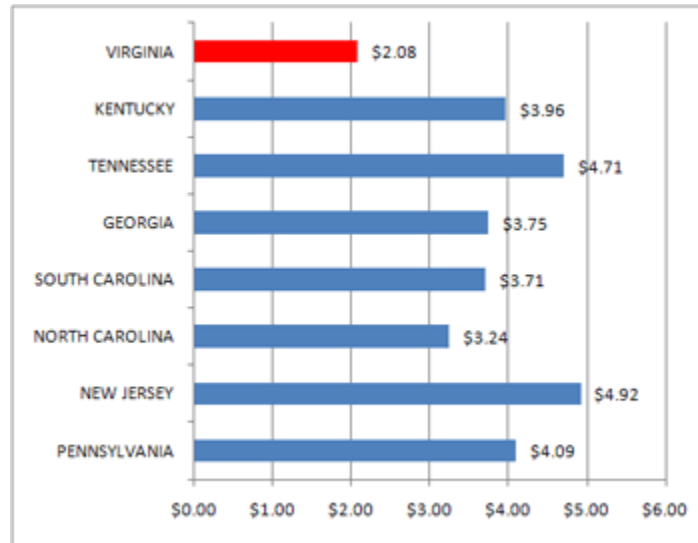


Unemployment Insurance Tax Per Employee



Estimates of unemployment insurance tax per employee are a product of the average unemployment insurance tax as a percentage of taxable wages and the taxable wage base. Source: Average Employer Contribution Rates, By State, CY 2008, Employment and Training Administration, United States Department of Labor

Net Workers' Compensation



Net Workers' Compensation insurance cost for manufacturing industry (per \$100 of payroll). States with no data provide workers' compensation insurance through a state fund. Source: Workers Compensation State Rankings Manufacturing Industry Rates and Statutory Benefit Provisions, 2008 Edition, Actuarial & Technical Solutions, Inc.

Higher Education and Training

Strong occupational and technical training programs designed to meet the needs of the Plastics & Advanced Materials industry are provided by Virginia's colleges and universities, Community College System, and communities.

- Virginia Tech is home to the interdisciplinary Macromolecules and Interfaces Institute, integrating macromolecular and interfacial sciences and engineering
- The Virginia Community College System offers High Performance Manufacturing Technicians certifications
- Danville Community College in Southern Virginia offers plastics processing technology certificates and its training center includes an injection molder, extruder, pultruder, and auxiliary equipment for hands-on training
- Dabney S. Lancaster Community College in Western Virginia offers an Advanced Manufacturing and Packaging Technology curriculum
- The Center for High Performance Manufacturing (CHPM) at Virginia Tech works to help manufacturing firms stay competitive

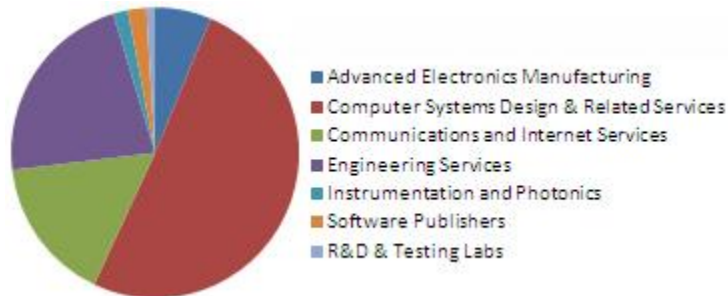
Virginia's High Technology Industry

Virginia has the highest percentage of technology workers in the country and ranked 5th in total high technology employment as reported in Cyberstates 2009.

The American Electronics Association's definition of technology includes both manufacturing and services industries, but clearly the services side dominates high technology employment in Virginia, with almost half of high technology employment accounted for by Computer Systems Design & Related Services.

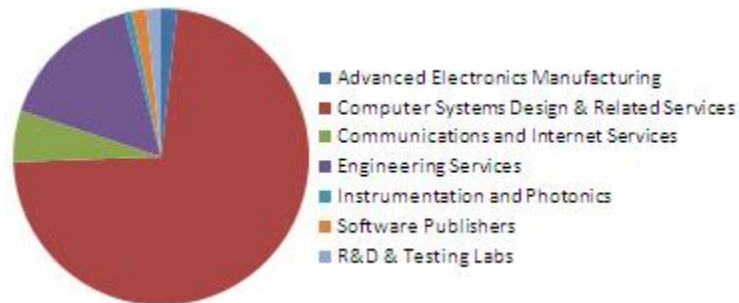
The economic output of Virginia's high technology industry is \$58 billion. High technology also supports \$41 billion in additional economic output in Virginia.

Virginia's High-Technology Employment by Sector



- In 2008, high technology industries accounted for almost 285,000 jobs in Virginia
- Almost half of high technology jobs are in computer systems design and related services
- Engineering services account for more than 58,000 jobs in Virginia's high technology industry

Virginia's High-Technology Firms by Sector



- In 2008, high technology industries accounted for over 12,600 firms in Virginia
- Nearly three-quarters of technology companies are in Computer Systems Design and Related Services, accounting for more than 8,900 firms
- Engineering services accounts for over 1,800 firms in Virginia's high technology industry

Virginia's Technology Workforce

- All Computer and Mathematical Occupations
 - Virginia ranks 1st in percentage of workers
 - Virginia ranks 4th in the number of workers

- Computer Systems Analysts
 - Virginia ranks 1st in percentage of workers
 - Virginia ranks 3rd in the number of workers
- Computer Software Engineers, Applications
 - Virginia ranks 2nd in percentage of workers
 - Virginia ranks 3rd in the number of workers
- Computer Software Engineers, Systems Software
 - Virginia ranks 2nd in percentage of workers
 - Virginia ranks 4th in the number of workers

High-Technology Occupation	Total Employed - All Industries
Computer software engineers, applications	31,830
Computer software engineers, systems software	26,060
Computer programmers	12,650
Computer systems analysts	33,590
Computer support specialists	18,750
Network and computer systems administrators	18,550
Network systems and data communications analysts	14,160
Electrical engineers	7,270
Computer and information systems managers	11,070
Engineering managers	4,830

Education for the Technology Workforce

- Seventy Virginia public and private institutions offer programs in information technology and related fields. These schools are well dispersed throughout the state with a heavier concentration in Northern Virginia, Richmond and the Hampton Roads regions.
- According to the State Council of Higher Education for Virginia, more than 15,500 students were enrolled in information technology programs and over 3,300 degrees and certificates were awarded in the 2007-2008 academic year.

Fall 2008 Select Enrollment in IT and Related Programs at Virginia's Universities and Colleges	
Program Name	Total
Computer and Information Sciences	5,821
Electrical/Electrical Engineering	2,475
Computer Science	1,660
Information Science/Studies	1,009
Computer/Software Engineering	1,164
Management Information Systems	1,008
Systems Engineering	1,470
Information Technology	1,036
Total	15,643
<i>All degree types; Data available only for universities reporting to SCHEV</i>	

Fall 2008 Select Enrollment in IT and Related Programs at Virginia's Universities and Colleges	
Program Name	Total
Computer and Information Sciences	1,216
Electrical/Electrical Engineering	551
Information Science/Studies	465

Systems Engineering	307
Computer/Software Engineering	269
Management Information Systems	214
Computer Science	198
Information Technology	95
Total	3,315
<i>All degree types; Data available only for universities reporting to SCHEV</i>	

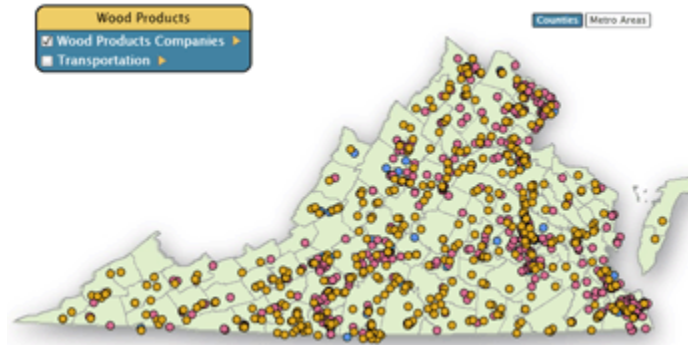
Major Technology Companies in Virginia

In the past ten years, over 98,400 jobs have been added in high technology industries, with investment of \$8.15 billion

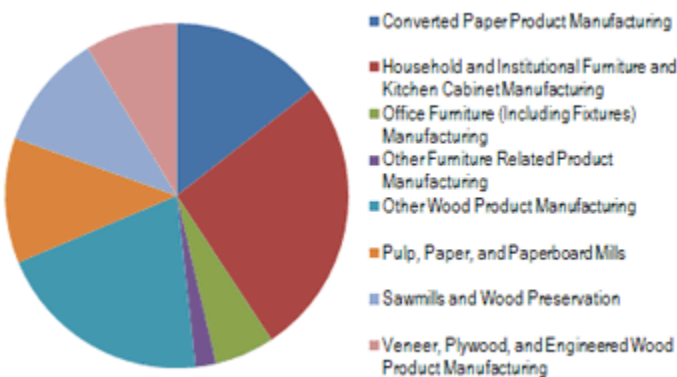
Major Technology Companies in Virginia
AREVA
BAE Systems
Canon Virginia
Computer Sciences Corporation
Electronic Data Systems
General Dynamics
L-3 Communications
Lockheed Martin
Micron Technology
Northrop Grumman
Orbital Sciences Corporation
Raytheon
SAIC
The MITRE Corporation
Unisys

Virginia's Wood Products Industry

- Employs 40,600 people.
- Is a \$10.5 billion industry.
- Supported by 15.8 million acres of forests.
- Virginia's timberland is 78% hardwood forest and 22% softwood forest.
- Central location on the Atlantic Coast provides interstate and rail access to the Northeast, Southeast, and Midwest.
- Access to international markets provided by the Port of Hampton Roads and Washington-Dulles International Airport.

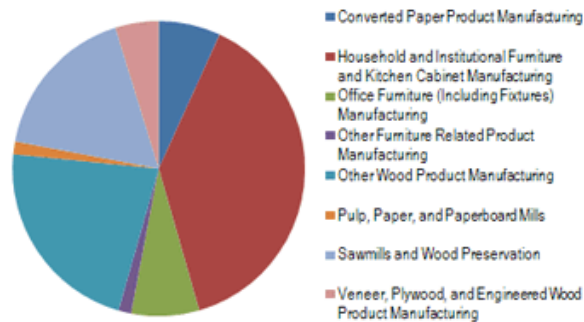


Wood Products Employment in Virginia, 2008



In 2008, Virginia's Wood Products industry employed 40,600 people. Total Manufacturing employment in Virginia was 272,800. The Wood Products industry accounts for 15% of Virginia's manufacturing employment, and is the second largest industry behind transportation equipment. The top three Wood Products sectors by employment are Household and Institutional Furniture and Kitchen Cabinet Manufacturing (10,700); Other Wood Product Manufacturing (8,300); and Converted Paper Product Manufacturing (5,900). These three sectors comprise 61% of all Wood Products employment in Virginia. The economic output of Virginia's Wood Products Industry is \$10.5 billion. Wood Products supports an additional \$7.4 billion in economic activity in Virginia. .

Wood Products Firms in Virginia, 2008



Virginia is home to 1,141 Wood Products companies with 1,200 locations. Of the 6,208 manufacturing locations in Virginia, 19% of them are in Wood Products. Wood Products represents Virginia's largest number of manufacturing establishments. The top three sectors for Wood Products companies are Household and Institutional Furniture and Kitchen Cabinet Manufacturing (442), Other Wood Product Manufacturing (253), and Sawmills and Wood Preservation (197). These three sectors comprise 78% of Virginia's Wood Products companies.

Major Wood Products Companies in Virginia
American of Martinsville
American Woodmark
Augusta Lumber
Bassett Furniture
Chervan
Georgia Pacific
Greif Packaging
Hooker Furniture
MeadWestvaco
Merillat Corporation
Nationwide Custom Homes
Packaging Corporation of America
Rowe Furniture
Shorewood Packaging
Smurfit-Stone
Stanley Furniture
Stuart Flooring
Thomasville Furniture
Vaughan Bassett Furniture
Yorktowne Cabinetry

New and Expanding Wood Products Companies in Virginia

In the past ten years, over 15,200 new jobs have been added in the wood products industry, with investment of \$1.6 billion.

Recent major announcements include:
Aspen Products
Carded Graphics
Georgia-Pacific
Premier Woodworking

Solaris Paper
Swedwood

Virginia's Skilled Wood Products Workforce

Selected Wood Products Occupations	Virginia Employment	Virginia Mean Wage
Cabinetmakers and bench carpenters	3,710	\$14.88
Carpenters	26,960	\$18.50
Cementing and gluing machine operators and tenders	540	\$12.32
Coating, painting, and spraying machine setters, operators, and tenders	2,040	\$14.77
Furniture finishers	720	\$12.10
Helpers--production workers	9,270	\$10.50
Inspectors, testers, sorters, samplers, and weighers	10,500	\$16.66
Machine feeders and offbearers	3,770	\$13.60
Packers and packagers, hand	17,190	\$9.53
Paper goods machine setters, operators, and tenders	2,750	\$16.80
Sawing machine setters, operators, and tenders, wood	2,390	\$14.16
Sewing machine operators	3,250	\$10.28
Team assemblers	15,670	\$12.52
Upholsterers	1,050	\$14.13
Woodworking machine setters, operators, and tenders, except sawing	3,480	\$12.16

Virginia's labor force benefits from over 16,000 skilled workers exiting the military each year.

Education and Training

The Virginia Community College System provides education and training programs for Virginians and Virginia businesses. Degree programs include:

- CAD/CAM
- Engineering Technology
- Forestry Technology
- Industrial Electronics
- Industrial Production
- Industrial Technology
- Mechanical Engineering Technologies

Virginia: Business Without Borders

More than 800 internationally owned businesses from 45 countries have created more than 150,000 jobs and invested more than \$18 billion in Virginia. Virginia's internationally owned companies diversify our economy, enhance our culture, and introduce new technologies and advanced manufacturing techniques.

